

Application No. 09/539,210  
Response to Final Office Action

Customer No. 01933

Listing of Claims:

1. (Currently Amended) A drive control method for a photosensor array including a plurality of rows, each having a plurality of photosensors arranged to form a matrix, the method comprising a driving sequence which includes:
  - 5 applying a reset pulse to a predetermined row of the photosensor array to initialize the plurality of photosensors in the row;
  - accumulating charges generated by light irradiation during a charge accumulation period;
  - 10 applying a predetermined pre-charge pulse to the plurality of photosensors during a pre-charge operation; and
  - applying a read pulse to the plurality of photosensors of the row after completion of the initialization, after the charge accumulation period, and after the pre-charge operation, to output a voltage generated by the charges accumulated during the charge accumulation period as an output voltage;
  - 15 wherein timings of applying the reset pulse, the pre-charge pulse and the read pulse to each row are set not to overlap in time with each other,
  - 20 wherein the charge accumulating periods for the rows are set to have a period equal to one of: (i) a sum of a read pulse interval for each row and a pulse width of the pre-charge pulse,

Application No. 09/539,210  
Response to Final Office Action

Customer No. 01933

25 and (ii) a sum of an integer multiple of a read pulse interval  
and the pulse width of the pre-charge pulse an application time  
and an integer multiple of the application time of the read pulse  
for each row, and

wherein the charge accumulating periods have an overlapping  
period between at least two different rows.

2. (Previously Presented) The drive control method for a  
photosensor system according to claim 1, wherein the reset pulses  
are successively applied to the rows of the photosensor array to  
successively initialize the plurality of photosensors, and

5 wherein the read pulses are successively applied to the  
plurality of photosensors after the initialization, after the  
charge accumulating period and after completion of the pre-charge  
operation, to output successively the voltages generated by the  
charges accumulated during the charge accumulating period as the  
10 output voltages.

3. (Previously Presented) The drive control method for a  
photosensor system according to claim 2, wherein an application  
period of the pre-charge pulse and the read pulse for each row is  
equal to or longer than a sum of a pulse width of the pre-charge  
pulse and a pulse width of the read pulse.

Application No. 09/539,210  
Response to Final Office Action

Customer No. 01933

4. (Previously Presented) The drive control method for a photosensor system according to claim 2, wherein an application period of the reset pulse for each row and an application period of the pre-charge pulse and the read pulse for each row are equal to or longer than a sum of a pulse width of the pre-charge pulse and a pulse width of the read pulse.

5. (Previously Presented) The drive control method for a photosensor system according to claim 2, wherein an application period of the reset pulse for each row and an application period of the pre-charge pulse and the read pulse for each row are equal to or longer than a sum of a pulse width of the reset pulse, a pulse width of the pre-charge pulse and a pulse width of the read pulse.

Claim 6 (Canceled).

5. (Previously Presented) The drive control method for a photosensor system according to claim 1, wherein each of the photosensors comprises a source electrode and a drain electrode arranged with a channel region comprising a semiconductor layer interposed therebetween, and a first electrode and a second electrode formed at least above and below the channel region with insulating layers interposed therebetween, and wherein the

Application No. 09/539,210  
Response to Final Office Action

Customer No. 01933

charges are generated and accumulated in an amount corresponding to an amount of light irradiating the channel region.

8. (Previously Presented) The drive control method for a photosensor system according to claim 7, wherein the reset pulse is applied to the first electrode of the photosensor to initialize the photosensor; and

5 the pre-charge pulse is applied to the drain electrode of the photosensor, and the read pulse is applied to the second electrode of the photosensor after completion of the pre-charge operation to output a voltage of the drain electrode as the output voltage.

9. (Previously Presented) The drive control method for a photosensor system according to claim 1, wherein an application period of the pre-charge pulse for each row and the read pulse is equal to or an integer number times as long as a sum of a pulse width of the pre-charge pulse and a pulse width of the read pulse.

5 10. (Previously Presented) The drive control method for a photosensor system according to claim 9, wherein the charge accumulating periods for the rows are equal to or an integer

Application No. 09/539,210  
Response to Final Office Action

Customer No. 01933

number times as long as said sum and are set different from each  
5 other depending on the rows.

11. (Previously Presented) The drive control method for a photosensor system according to claim 9, wherein the reset pulses are simultaneously applied to the rows of the photosensor array, the pre-charge pulses are applied at the time interval equal to or an integer number times as long as said sum, and the read pulses are applied to each row, and wherein the charge accumulating period for each row is set to a different time.

12. (Previously Presented) The drive control method for a photosensor system according to claim 9, wherein the reset pulses are applied to each row of the photosensor array at the time interval equal to or an integer number times as long as said sum and, after completion of the reset pulse application to all the rows, the pre-charge pulses are applied and the read pulses are applied to each row in an order opposite to an order of applying the reset pulses to each row of the photosensor array.

13. (Previously Presented) The drive control method for a photosensor system according to claim 9, wherein the reset pulses are successively applied to each row of the photosensor array at

Application No. 09/539,210  
Response to Final Office Action

Customer No. 01933

the time interval equal to or an integer number times as long as

5 said sum;

wherein the pre-charge pulses are applied in synchronism with the application of the reset charges, and the read pulses are applied to each row in an order opposite to an order of applying the reset pulses to each row of the photosensor array;

10 and

wherein after completion of a pre-charge voltage application and the read pulse application, and after a lapse of time equal to said sum, the pre-charge pulses are applied and the read pulse is applied again to each row in an order equal to the order of applying the read pulse to each row at the time interval equal to 15 or an integer number times as long as said sum.